5

10

15

20

## What is claimed is:

1. A circuit device manufacturing method comprising the steps of:

forming conductive patterns, by preparing a conductive foil and then forming isolation trenches shallower than a thickness of the conductive foil, on the conductive foil in regions except at least the conductive patterns on which a number of mounting portions of circuit elements are formed;

covering surfaces of the conductive patterns and the isolation trenches with a resist layer and forming a conductive plating layer in desired regions of the conductive patterns;

fixing circuit elements on the conductive plating layer on respective mounting portions of desired conductive patterns;

commonly molding an insulating resin to cover collectively the circuit elements on respective mounting portions and to fill the isolation trenches;

removing the conductive foil having thickness portions in which the isolation trenches are not provided; and

separating the insulating resin into respective mounting portions by dicing.

- 2. The circuit device manufacturing method according to claim 1, further comprising the step of:
- forming connecting member that connect electrically

electrodes of the circuit elements on respective mounting portions and desired conductive patterns, before the step of commonly molding an insulating resin.

- 5 3. The circuit device manufacturing method according to claim 1, wherein the conductive foil is formed of any one of copper, aluminum, and iron-nickel.
  - 4. The circuit device manufacturing method according to claim 1, wherein the conductive plating layer is formed smaller than the conductive patterns.
- 5. The circuit device manufacturing method according to claim 4, wherein the conductive plating layer is formed by gold or silver plating.
  - 6. The circuit device manufacturing method according to claim 1, wherein the isolation trenches formed selectively on the conductive foil are formed by chemical or physical etching.
  - 7. The circuit device manufacturing method according to claim 1, wherein at least one of bare semiconductor chips and chip circuit components are fixed as the circuit elements.

20

10

- 8. The circuit device manufacturing method according to claim 2, wherein the connecting member is formed by wire bonding.
- 5 9. The circuit device manufacturing method according to claim 8, wherein the wire bonding is applied onto the conductive plating layer of the conductive patterns.
  - 10. The circuit device manufacturing method according to claim 8, wherein position recognition of the wire bonding is executed by using contrasts between the conductive patterns and the conductive plating layer.
- 11. The circuit device manufacturing method according 15 to claim 1, wherein the insulating resin is covered by transfer molding.
- 12, The circuit device manufacturing method according to claim 1, wherein a plurality of blocks in which conductive patterns on which at least a number of mounting portions of the circuit elements are formed are aligned in a matrix fashion are arranged on the conductive foil.
- 13. The circuit device manufacturing method according 25 to claim 12, wherein the insulating resin is covered by transfer

10

5

molding every block.

- 14. The circuit device manufacturing method according to claim 12, wherein the insulating resin is separated into respective mounting portions by dicing every molded block.
- 15. The circuit device manufacturing method according to claim 14, wherein the dicing is carried out by using alignment marks formed together with the conductive patterns.
- 16. The circuit device manufacturing method according to claim 14, wherein the dicing is carried out by using opposing alignment marks formed together with the conductive patterns.